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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/652,330	08/31/2000	Eric G. Lang	MS 150404. 1/40062.68US01	3094

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EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 01/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/652,330

Applicant(s)

LANG, ERIC G.

Examiner

Kimnhung Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 14-22 and 26-35 is/are rejected.
- 7) ☒ Claim(s) 11-13, 23-25 and 36-38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This Application has been examined. The claims 1-38 are pending. The examination results as following.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8, 9-10, 14-22 and 26-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Luo (US patent 6,378,234).

Luo discloses in figures 1-5 that a method for inputting information in an information processing device having an input key movable in M directions keystroke (see column 7, lines 51-52), the method comprising the acts of moving the key in one of the M directions to generate N selection strokes (see figure 1, see abstract); repeating the act of moving the key N number of times to generate N selection strokes (see figures 9-10, column 12, lines 23-28), a pattern of N selection strokes with each stroke being in one of M directions defining the information to be input (by keystroke) to the information processing device (see column 7, lines 51-52), wherein each act of moving comprises a selected subset of information from a set of information (see figures 4-5), and wherein the set of information is a set of characters and set of characters are numeric characters (see column 3, lines 24-27), and wherein the information processing device

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has a display screen (see column 4, lines 40-55) to display each subset of information of the input key (see figure 4).

3. Regarding claims 9-10, 14-19, Luo discloses in figures 1-2 and 27 that a method for interpreting a sequence of input (keystroke sequence, see column 14, lines 25-28) by a multi-directional input key to input method comprising a display (screen, see column 15, lines 63-67) of the selectable information element set in a pattern illustrating input key stroke direction from movement of the input key (see column 12, lines 43-48); detecting a key stroke (40, see figure 1) direction from movement of the input key (see column 15, lines 25-28); identifying from the key stroke direction a selected subset of the of the selectable information element (see figure 5); repeating the detecting action and identifying action for a predetermined number of strokes by the input key so that the identifying step after the last stroke of the input key identifies selected information element to be loaded into the computing system (see figures 1, 4 column 10, lines 43-51, column 12, lines 23-28). Luo also discloses that the displaying an information element set of selectable elements for input into the computing system to illustrate subsets of information elements selectable with each directional stroke (see figure 1).

4. Regarding claims 20-22, 26-27 and 32-35, Luo discloses in figure 1 that a computing system for interpreting directional strokes from an input button (see column 7, lines 51-52) to enter information into the computing system comprising a display processor drawing a display page for display screen (see column 4, lines 41-48), the display page containing information elements arranged in a pattern to guide selection of information elements by directional strokes of the input button; an input adapter detecting directional strokes by the input button; a stroke processor identifying an information element for entry in the computing system, the information

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element identified based on a sequence of directional strokes detected (40, keystroke encoder, see figure 1). Furthermore, wherein the stroke processor comprises information element array storing the information elements as hierarchy with each stroke (see figure 1, column 7, lines 59-63).

Allowable Subject Matter

5. Claims 11-13, 23-25 and 36-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The present invention is directed to a method for a sequence of input strokes by a multi-directional input key to input an information element into computing system. The closest prior art, Luo (US 6,378,234) disclose a conventional sequence stroke keyboard to the computer system. However, Luo fails to teach that wherein the number of strokes N is given by logarithmic value of the number of the information elements in the information element set to a base M where M is the number of directional strokes available from the input key, or wherein the number of strokes in a sequence to select an information element is given by the expression $N = \log(M) \cdot E$ where N is the number of strokes, M is the number of possible directions for each stroke of the input button, and E is the number of information elements in the information element set from which a desired information element is selected.

Response to arguments

6. Applicant's argument filed on 10-17-02 has been fully considered but they are not persuasive.

Applicant argues that Luo does not disclose "a multidirectional key" or "moving the key in one of the M directions". However, this argument is not persuasive because Luo does teach a keyboard having fewer keys linked sequences of keystrokes in generation of some characters therefore, the input with keyboard should have multidirectional key.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number (703) 308-0425.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D. C. 20231


Or faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kimnhung Nguyen
January 10, 2003



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600